

# A METHOD FOR AUTOMATIC SEGMENTATION OF IMAGE DATA FROM MULTIPLE DATA SOURCES

## Abstract

5

A method (300) and apparatus (400) is described for segmenting an image (102). Starting with each pixel of the image (102) being a separate region, segments are formed by merging the regions. As merging proceeds, a merging cost of the regions being merged generally increases. This increase however is not purely monotonic as the overall rise in  
10 the merging cost is punctuated by departures from monotonicity. A complete pass is made through the segmentation, in which all regions are merged until only one remains. By analysing the points immediately after significant departures from monotonicity, a final segmentation stopping value ( $\lambda_{stop}$ ) is chosen as being the last return to monotonicity from such a significant departure. Segmentation is repeated until the merging cost  
15 reaches the final segmentation stopping value ( $\lambda_{stop}$ ).

TELETYPE